



MYOB PayGlobal

Upgrade Manual

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Introduction

Welcome to the MYOB PayGlobal *Upgrade* manual.

This manual explains the procedures required to upgrade the PayGlobal Application.

This manual assumes that:

- a. You are already using a PayGlobal database.
- b. You use multiple versions and databases in one *Hr.ini* file, which is the recommended setup.
- c. You have a supervisor user profile, and you can run the entire PayGlobal upgrade procedure.
- d. You have the security permissions to restore an SQL database.

Important: Only members of the *sysadmin* fixed server role can restore a database.



Supported Environments

Compatible environments continuously change based on the developments in manufacturers' environments that are outside the control of MYOB.

MYOB actively manages the compatibility of MYOB PayGlobal with various environments.

The **MYOB PayGlobal Infrastructure and Components** document outlines the supported versions of MYOB PayGlobal products and the minimum environments they need to run. Please refer to this document for all information regarding this.

.NET Framework Runtime

Windows 10 (and newer operating systems) contain all required components and will run without modification.

For Employee Self-Service, the minimum version of .NET Framework Runtime is 4.8 and this must be installed on the ESS and Workflow host servers if they are less than Windows Server 2022.

For older supported versions of Windows, we recommend you install the latest available .NET Framework Runtime library from Microsoft.

1. Download this from <https://www.microsoft.com/net/download/dotnet-framework-runtime>. This will work for all supported versions of Windows.
2. If the above link is not available, go to <https://www.microsoft.com/en-us/download/default.aspx>, and search for .NET Framework. Download the latest available version.



About Upgrading

Planning the Upgrade

Minimise Disruption

Upgrading your database can take from one hour to several hours, depending on the size of your company. Other users **cannot** access the PayGlobal database during the upgrade. We recommend that large sites run their upgrade overnight or during the weekend to minimise disruption.

Inform other users

Let all other users know that you will need exclusive access to the PayGlobal database during the scheduled upgrade. If users know when the PayGlobal database will be unavailable, then they can schedule their work around the upgrade.

Network rights

If you are running the upgrade over a network, then you must have appropriate rights to access the upgrade software. Check your access rights with your network support staff. Let your network support staff know that the account you run the upgrade on must have access to **at least one folder**. For example, "H:\PayGlobal", not just "H:". PayGlobal requires this access to prevent pathing errors.

Use the Upgrade Worksheet

During the upgrade, you need to record certain information. We suggest that you use the upgrade worksheet to record this information.



Upgrade FAQs

This section contains answers to frequently asked questions about the release upgrade process.

When do I have to upgrade to the release?

If the release is a tax release, you must complete the upgrade **before** you open the first pay of the new tax year to ensure that the correct tax rates are applied. Ensure that you run the PayGlobal tax release in a testing environment before you 'go live' with the new version.

Can I run the upgrade?

Before upgrading to the release, you must decide whether you want to run the upgrade yourself or have a consultant run it for you.

Where do I get the upgrade installation file?

You can download the upgrade installation file by going to the URL specified in the Release Update email sent to you by MYOB PayGlobal.

What happens to PayGlobal during the tax upgrade?

The PayGlobal executable file is replaced with a new executable file that contains the new tax rules.



Pre-upgrade and Upgrade Checklist

The following table contains a summary of the pre-upgrade and upgrade tasks that you will complete in this manual. Print the checklist and tick each checkbox as you complete the step.

Description	Complete
Pre-Upgrade Tasks	
Run Integrity Checker	<input type="checkbox"/>
Run Check Database Structure	<input type="checkbox"/>
Get PayGlobal Installation File	<input type="checkbox"/>
Ensure exclusive access to PayGlobal	<input type="checkbox"/>
Record current database information	<input type="checkbox"/>
Close all open pay sequences	<input type="checkbox"/>
Back up databases	<input type="checkbox"/>
Turn off Referential Integrity	<input type="checkbox"/>
Close all applications and stop PayGlobal Scheduler Service	<input type="checkbox"/>
Upgrade Tasks	
This manual explains the upgrade process for a database that uses multiple versions and databases in one Hr.ini file, which is the recommended setup.	
Create new test database	<input type="checkbox"/>
Restore from backup to create a new test database	<input type="checkbox"/>
Secure the database	<input type="checkbox"/>
Run PayGlobal Installation Wizard	<input type="checkbox"/>
Update Hr.ini file	<input type="checkbox"/>
Copy additional version files (such as rpm_hr.ini and bank.ini) into the new version folder	<input type="checkbox"/>
Update the PayGlobal.Business.Net.dll.config file	<input type="checkbox"/>
Get/install new certificate	<input type="checkbox"/>
Copy customised database files (such as Perm and Rept files) into the test database	<input type="checkbox"/>
Upgrade test database	<input type="checkbox"/>
Confirm upgrade version	<input type="checkbox"/>



Description	Complete
Make changes for Self-Service	<input type="checkbox"/>
Check test database	<input type="checkbox"/>
Upgrade live database	<input type="checkbox"/>
Turn on Referential Integrity	<input type="checkbox"/>



PayGlobal Upgrade Worksheet

Use this worksheet to record important details about your PayGlobal upgrade.

Information	Details
Current version number:	
Application directory:	
Data directory:	
Database name:	
SQL version:	
Self Service version:	
Download location: (If you are downloading the PayGlobal upgrade files from the internet).	
Upgrade version number:	



Before the Upgrade

Before you start the upgrade, you must complete the upgrade preparation tasks.

Database Integrity Checker

The Integrity Checker is stored in your application directory when you install PayGlobal. The Integrity Checker validates your database so you can continue using the .NET-based PayGlobal framework. Use the Integrity Checker to check your database, and then correct any errors that it finds.

Each PayGlobal version uses a specific version of the Integrity Checker. This means:

- Before upgrading, you must run the Integrity Checker for the same version as the PayGlobal version you are upgrading from (i.e., your current version).
- After upgrading, you must run the Integrity Checker for the same version as the PayGlobal version you upgraded to (i.e., your new version).

The Integrity Checker works similarly to the *Check Database Integrity* command in PayGlobal but has more functionality such as checking for overlapping rates.

The Integrity Checker checks that:

- Date ranges are consistent.
- Specific option fields contain the correct values.
- Specific fields are linked to foreign keys.
- Key fields do not have leading or trailing spaces.
- Core fields are not null.
- NLX rules are syntactically valid.
- Rates do not overlap.

Important: If you upgrade your live database and your data has integrity errors, then you might not be able to process a pay successfully until these errors are corrected.



Integrity Checker System Requirements

When you run *IntegrityChecker.exe*, the application requires other files to be present. If these files are missing or are an incorrect version, then the application will not start, and an error message appears.

You use the Integrity Checker in the following situations:

Validating your database in preparation for upgrade

The Integrity Checker requires an **Hr.ini** file. If Integrity Checker cannot find the Hr.ini, then it will not start, and an error message will appear. During the Integrity Checker procedure, you can select a database to check from the list of company databases in the Hr.ini file.

If your Hr.ini is not in the same folder as the Integrity Checker, then you can specify the location of Hr.ini using the command line (such as, *IntegrityChecker.exe C:\Temp\Hr.ini*). Alternatively, you can copy your Hr.ini temporarily into the same folder as *IntegrityChecker.exe* while you run the Integrity Checker, and then delete the copied file when the process is complete.

Validating your database in preparation for using Self-Service

The Self-Service Integrity Checker does not require an Hr.ini file because Self-Service automatically uses the database specified in Config Editor. See [Run Integrity Checker for Self-Service](#).

Note: *You cannot run the Integrity Checker across a network because it will crash. You must install the Integrity Checker locally on each computer that needs to run it. You must use the version of the Integrity Checker that corresponds to your version of PayGlobal. For example, if your database is 4.66.0.0, then you must use version 4.66.0.0 of the Integrity Checker.*



Running the Integrity Checker

When you select a database, the Integrity Checker uses the same method that PayGlobal uses to connect to the database.

The connection may fail when you are checking in preparation for **PayGlobal** due to:

- incorrect user credentials
- an unsecured database
- incorrect data in the Hr.ini file
- a network problem, such as the server being offline.

The connection may fail when you are checking in preparation for **Self-Service** due to:

- an invalid connection string
- an incorrect database or server name
- incorrect data in the Hr.ini file

If the connection fails, then an error appears, which briefly describes the problem. You can attempt to connect again after you close the error message.

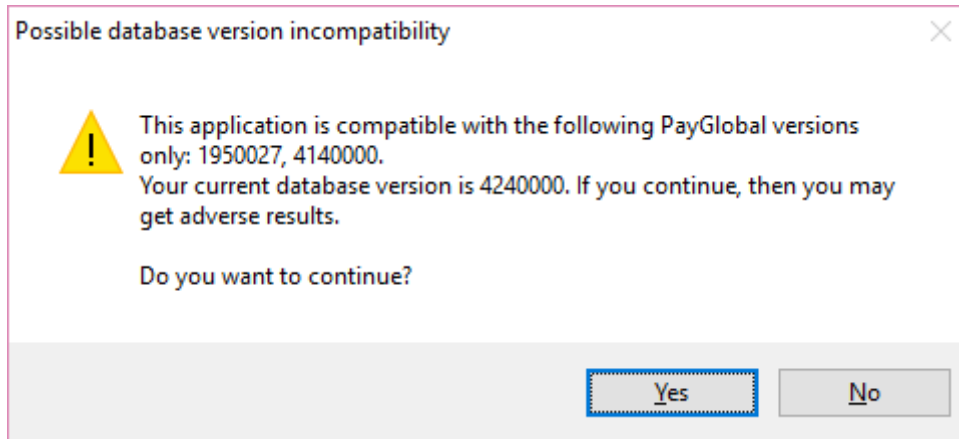
Integrity Checker Procedure for PayGlobal

You should run the Integrity Checker on your database before you upgrade. When you installed PayGlobal, the Integrity Checker was copied to the same folder as *Hr.exe*.

Note: *If you want to validate your database in preparation for using Self-Service, then see [Run Integrity Checker for Self-Service](#).*

1. Back up the database that you want to check.
You should always take a backup of your database before you run any major database processes.
2. Navigate to the *Integrity Checker* folder.
3. Double-click **IntegrityChecker.exe**.
The *Select a PayGlobal database* page appears.
4. Select the required database from the *Choose a company database* combo list, which displays all companies in the *Hr.ini* file.

Important: If you select a database on an incompatible version, then the following type of message appears.

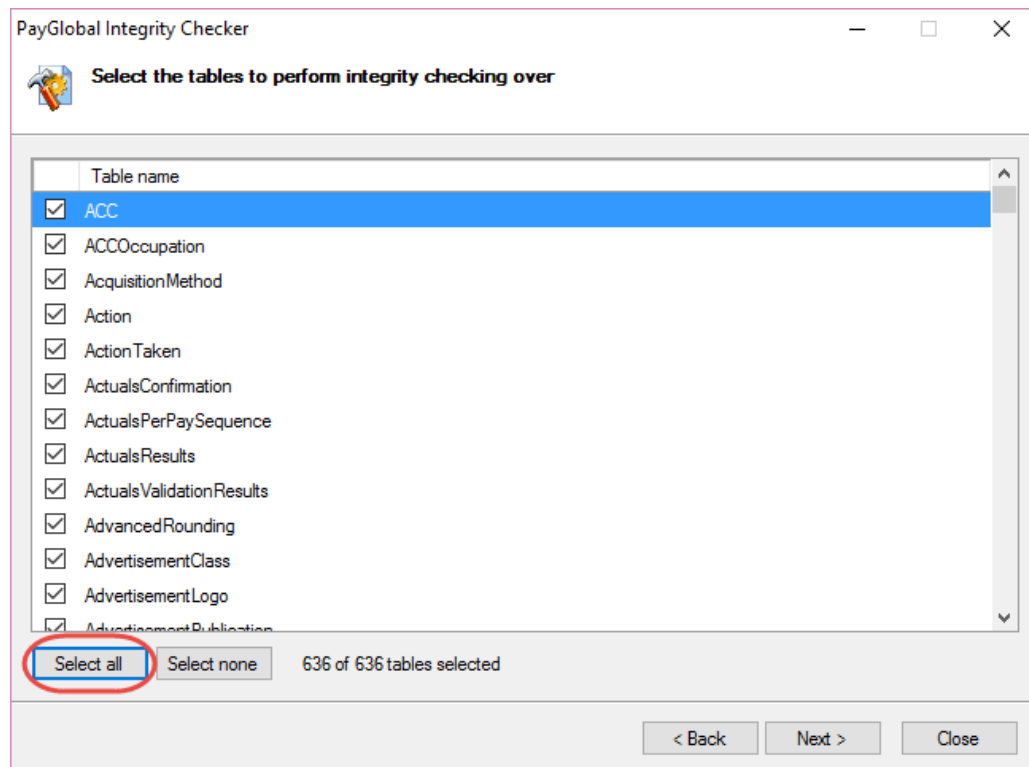


You should not continue because the results may be incorrect, or an error may occur.

- Click **Next**.

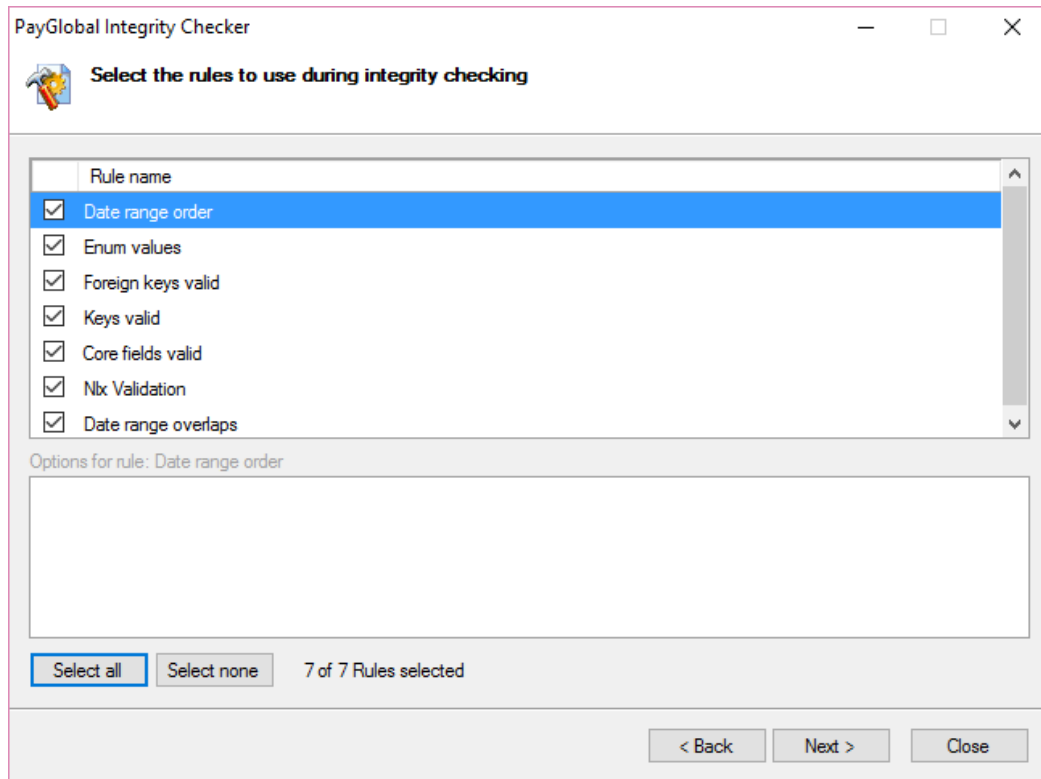
The Select the tables page appears.

You should select **all tables** and **all rules** to ensure that all of your data is checked.



- Ensure that **all** tables are selected.
- Click **Next**.

The Select the rules page appears.



8. Ensure that all rules are selected. See [Integrity Checker Rules](#).

Important: If your database has Effective Rates enabled you **MUST** tick the Rate overlaps rule

The [Keys valid](#) rule has options that you can configure in the Options for rule section. The first time that you use this rule, you should use the "LogOnly" option.

Note: When you have selected a rule that may update your database, the following message appears:

"One or more of the rules you have selected may alter your data. It is recommended that you backup your database before continuing. Do you want to continue?"

- Click **Yes** to go to the next page.
 - Click **No** to return to the rules selection page.
-

9. Click **Next**.

The *Begin integrity checking* page appears.

10. Click **Start**.

A two-stage progress bar and status messages are displayed while the tables are checked by each rule. You can click the Cancel button to cancel the process, which allows the rule that is currently running to complete before the integrity check is terminated.

Important: If you cancel the process, then any changes that have already been made to the database are **not** rolled back.

The *Displaying database integrity check results* page appears, which displays a summarised list of violations.

To view more information about the integrity check, click the *View audit log* button. See [Integrity Checker Audit log](#).

The audit log shows which tables and records have problems, which rules were violated, and the errors that were corrected. The audit log is saved in the selected company's *Log* folder and has the prefix "Database_Integrity_Check".

11. Click **Finish**.

Important: Any errors that the Integrity Checker finds should be fixed before you upgrade your database. If the Integrity Checker finds errors that you cannot correct, then contact Customer Support who may need to book a consultant to fix the errors.



Integrity Checker Audit log

The following table explains the information displayed in the audit log.

Information	Details
Start time	Time the check was started.
Integrity Checker version	Version of the Integrity Checker and supporting framework.
Server name	Database server name.
Database name	Database name.
Database version	Database version (from CompanySettings table).
Integrity error details	<p>The following information is displayed for any errors found: Table name, rule name, violation description. The violation description generally provides specific information about the error, such as the record and field it occurred on, and the incorrect values. If a rule corrects an error, then the log displays the details of the correction.</p> <p>Some rules are not tied to a specific table. The specific format of these rules may vary.</p>
Processed tables count	Number of tables processed versus the number of tables selected, which may differ if processing was cancelled.
Duration	Total duration of the integrity check.
Evaluated rules list	List of rules that were used during the integrity check.
Filename	Filename of this audit log.
End time	Time the check finished.



Error Codes and Messages

Error Code	Example of Error Message
DATERANGE	EmployeeID: 1, ALStartDate: 5/10/2004 12:00:00 a.m. ALEndDate: 4/10/2003 12:00:00 a.m.
Problem: In this example, the employee with EmployeeID 1 has an annual leave table <i>Start date</i> after the <i>End date</i> . You can use <i>Customise Columns</i> to display the <i>Employee ID</i> column.	
ENUMVALUES	RateID:2, FactorOperator:Plus
Problem: The <i>Factor Operator</i> combo list on the Rate table has the following valid values: Multiply, Divide, Add, Subtract. However, in this example, the <i>Factor Operator</i> for RateID 2 is "Plus".	
RATEOVERLAP	EmployeeRateID : 676, Starts 26/09/2012 Ends 25/08/2013 EmployeeRateID : 681, Starts 10/05/2013 Ends 23/08/2013
Problem: In this example, the employee has two sets of rates that are overlapping with one another. The error shows the start and end dates and table ID's for the overlapping rate records.	
FOREIGNKEY	EmployeeID: 5, AwardCode: C010
Problem: In this example, the employee with EmployeeID 5 has an AwardCode that does not exist.	
COREFIELD	PayPeriodSequenceID: 563, PayPeriodCode is NULL
Problem: In this example, the pay sequence with PayPeriodSequenceID 563 has a NULL value for the PayPeriodCode.	
KEYINVALID	EmployeeID:1, AwardCode: C01 :- Extra spaces
Problem: Primary keys and foreign keys must be upper case and not have spaces before or after them. In this example, the employee with EmployeeID 1 has an award code with spaces before or after it.	
NLX Errors	
NLXGNFLD001	[NlxEmField] - The field name "XECHARGE" is not present in the Employee table.
Problem: NLX errors are caused by incorrect clauses in payroll rules. For example: Clause is referring to an allowance that has been deleted or a UDF that does not exist or was spelled incorrectly. Mismatched round or curly brackets (parenthesis). Clause structure is incorrect. One of the following is missing: comma, ".and.", ".or."	
NLXGNFLD002	[NlxPrQrCurrentEmpIDate] - The field name "EmployeeCode" in the Employee table is not the correct data type.
NLXGNFLD003	[oEQ] - Mismatched types for left and right hand side values.

NLXGNPAR001	[NlxPrArDednPostRemove] - NlxPrArDednPostRemove({}) : Maximum of 0 parameters allowed.
NLXGNPAR002	[NlxEmField] - NlxEmField({}) : Minimum of 1 elements required in the list for parameter 1 ("field").
NLXGNPAR003	[NlxPrArAccumAdd] - For list element 1 (parameter "indexAndValue") the value "1.2" is invalid.
NLXPRMIS001	Field posted to update accumulator but no accumulate command follows.
NLXGNSYN001	There appears to be mismatched parentheses. Clause structure is incorrect. Expected: RightParenthesis but got: EndOfLine. (Error level Function Parameters).
NLXGNSYN002	There appears to be mismatched curly parentheses. Clause structure is incorrect. Expected: RightCurlyParenthesis but got: RightParenthesis. (Error level Set).
NLXGNSYN003	There appears to be an extra comma or commas. Clause structure is incorrect. Expected: Function but got: Comma. (Error level Function).
NLXGNSYN004	Comma appears within quotes. Clause structure is incorrect. Expected: Comma but got: Function. (Error level Parameter List).
NLXGNSYN005	The text "NlxEmFeld" is not a recognised function name.
NLXGNSYN006	The clause NlxEmField('EmployeeCode') is neither true nor false and will be ignored.
NLXGNSYN007	Clause structure is incorrect. Expected: Function but got: EndOfLine. (Error level Function).
NLXPRAEM001	[NlxPrArFieldAccumPost] - The field name "MissingField" is invalid because it is not present in the Employee table.
NLXPRAEM002	[NlxPrArFieldAccumPost] - The field name "AIStartDate" in the Employee table is an incorrect data type to use with an accumulator.
NLXPRALW001	[NlxPrQrOAllwRateAmount] - The field value "ABC" does not represent a valid record in the Allowance table.
NLXPRALW002	[NlxPrQrOAllw] - The field value "MissingAllowance" does not represent a valid record in the Allowance table.
NLXPRALW003	[NlxPrQrTAllwQuantity] - The field value "MissingAllw" does not represent a valid record in the Allowance table.
NLXPRALW004	[NlxPostAllowances] - The field value "Missing" does not represent a valid record in the Allowance table.
NLXPRALW005	[NlxPrArAccumFromAllowanceQuantity] - The field value "MissingAllowance" does not represent a valid record in the Allowance table.
NLXPRCPT001	[NlxPrQrOCompEffective] - The field value "MissingCo" does not represent a valid record in the Competency table.
NLXPRCPT002	[NlxPrQrCompEffective] - The field value "Missingco" does not represent a valid record in the Competency table.

NLXPRCPT003	[NlxPrQrCompEffectiveCredits] - The field value "MissingCo" does not represent a valid record in the Competency table.
NLXPRDDN001	[NlxPrQrODednRateAmount] - The field value "MissingDeduction" does not represent a valid record in the Deduction table.
NLXPRDDN002	[NlxPrQrODedn] - The field value "MissingDeduction" does not represent a valid record in the Deduction table.
NLXPRDDN003	[NlxPrQrTDednQuantity] - The field value "MissingDedn" does not represent a valid record in the Deduction table.
NLXPRDDN004	[NlxPostDeductions] - The field value "Missing" does not represent a valid record in the Deduction table.
NLXPRDDN005	[NlxPrArAccumFromDeductionQuantity] - The field value "MissingDeduction" does not represent a valid record in the Deduction table.
NLXPREMD001	[NlxPrQrCurrentEmplDate] - The field name "Missing" is not present in the Employee table.
NLXPREUP001	[NlxPrArFieldPost] - The field name "MissingField" is invalid because it is not present in the database table Employee.
NLXPREUP002	[NlxPrArFieldPost] - The field name "ALStartDate" in the Employee table is incompatible with the update value "001".
NLXPREUP003	[NlxPrArFieldPost] - The field name "EmployeeCode" in the Employee table cannot be updated.
NLXPREUP004	[NlxPrArFieldPost] - The field name "AwardCode" in the Employee table cannot be updated by value "MissingAward" because this violates referential integrity.
NLXPRFAC001	[NlxPrArAccumFieldPost] - The field name "MissingField" is invalid because it is not present in the Employee table.
NLXPRFAC002	[NlxPrArAccumFieldPost] - The field name "EmployeeCode" in the Employee table is an incorrect data type to use with an accumulator.
NLXPRLVC001	[NlxEmLeaveCreditEndDate] - The field value "MissingLC" does not represent a valid record in the LeaveCredit table.
NLXPRLVC002	[NlxPrQrFutureEmLeaveCreditEndDate] - The field value "MissingLC" does not represent a valid record in the LeaveCredit table.
NLXPRMIS001	Field posted to update accumulator but no accumulate command follows.
NLXPRPER001	[NlxPrQrLastPeriod] - The field name "MerryChristmas" is not present in the PayPeriod table.
NLXPRQLF002	[NlxPrQrQualEffective] - The field value "MissingQual" does not represent a valid record in the Qualification table.
NLXPRRAT001	[NlxPrQrORateCodeEffective] - The field value "MissingRate" does not represent a valid record in the Rate table.

NLXPRREF001	[NlxPrArAllwPostAwardCode] - The field value "MissingAward" does not represent a valid record in the Award table.
NLXPRSUP001	[NlxHasEmSuperFund] - The field value "MissingSuper" does not represent a valid record in the SuperFund table.
NLXPRSUP002	[NlxPrArAllwPostSuperFundCode] - The field value "MissingSuper" does not represent a valid record in the SuperFund table.
NLXPRSUP003	[NlxPostSuperFunds] - The field value "MISSING" does not represent a valid record in the SuperFund table.
NLXPRSUP004	[NlxPrArCreateSuperDeducField] - Invalid SuperFund field name.
NLXPRQLF002	[NlxPrQrQualEffective] - The field value "MissingQual" does not represent a valid record in the Qualification table.
NLXPRRAT001	[NlxPrQrORateCodeEffective] - The field value "MissingRate" does not represent a valid record in the Rate table.
NLXPRREF001	[NlxPrArAllwPostAwardCode] - The field value "MissingAward" does not represent a valid record in the Award table.
NLXPRSUP001	[NlxHasEmSuperFund] - The field value "MissingSuper" does not represent a valid record in the SuperFund table.
NLXPRSUP002	[NlxPrArAllwPostSuperFundCode] - The field value "MissingSuper" does not represent a valid record in the SuperFund table.
NLXPRSUP003	[NlxPostSuperFunds] - The field value "MISSING" does not represent a valid record in the SuperFund table.
NLXPRSUP004	[NlxPrArCreateSuperDeducField] - Invalid SuperFund field name.



Integrity Checker Rules

Important: You must select the tables that you want to check and the integrity rules to run. Most of the integrity rules are designed to run for every table that you select, but some rules are tied to specific tables and will ignore your table selection. If you configure any rules that will update the database, then a warning message will appear advising you to back up your database.

Date range order

This rule checks for known pairs of date columns in the database and ensures that these date ranges are consistent; the start date must be less than or equal to the end date, or one or both dates may be null. For example, a pay period date range with Start date = 14/02/2020, End date = 08/02/2020 is invalid. This rule does not automatically correct errors.

Enum values

This rule ensures that any values for a field that has been designated as an enumeration (field that has a predefined set of values, such as a combo list) are within a pre-defined set. For example, values for the *Rate.FactorOperator* field should be Multiply, Divide, Add or Subtract. This rule does not automatically correct errors.

Foreign keys valid

This rule checks whether referential integrity is respected in the database. For example, the AwardCode in the Employee table must refer to an *Award record* in the Award table. Nulls are an acceptable value. This rule runs for every table that you have selected, but only checks a specific subset of columns that were identified as foreign keys, are of type "string", and are used by the PayGlobal framework. This rule does not automatically correct errors.

Keys valid

This rule checks whether any of the table's key values have leading or trailing white space, and that all keys are uppercase. The check includes the primary key (unique identifier), such as *EmployeeCode* on the Employee table, and all **foreign** keys, such as *AwardCode* on the Employee table.

This rule runs for every table that you have selected, but only checks a specific subset of columns that were identified as unique identifiers or foreign keys, are of type "string", and are used by the PayGlobal framework.

This rule supports a basic correction that you can specify with the Correction Action option:

- **LogOnly** (default) performs no correction.
- **RemoveForeignKeyLeadingAndTrailingSpaces** removes any leading and trailing white space from foreign keys, provided the changes can be made safely.

The first time you use this rule, you should use the "LogOnly" option. This option allows you to see any problems with your database so that you can check and correct these problems if required.

Values are modified only when a foreign key is invalid. Unique identifiers cannot be updated in this manner.

To change the *CorrectionAction*:

1. On the Select the rules to use during integrity checking page, click the **Keys valid** rule.

2. In the Options for rule section, select *CorrectionAction* = **LogOnly**.

Core fields valid

This rule checks that core fields are not null, particularly in makeup tables. For example, a record in the *CourseCourseResource* table that has a null *CourseCode* would be reported as an error. This rule does not automatically correct errors.

NLX validation

This rule checks that NLX clauses for payroll rules are valid. The check includes employee, qualifying and action clauses.

Note: *When you run the Integrity Checker to check NLX validation only, you do not need to select any tables*

Clauses are syntactically correct

Check identifies whether the NLX clauses can be recognised before they are run. The clauses must be syntactically correct and all the function names that are used must be recognised.

Common syntax errors are:

- mismatched parentheses
- mismatched curly parentheses
- missing or extra commas
- mismatched quotes
- misplaced quotes
- incorrect function names.

Parameter lists are correct

The Integrity Checker checks that the parameter list for each function is correct.

The number of parameters must be correct. For example, when you post the award code for the allowance that will be generated (NlxPrArAllwPostAwardCode), there should be only one parameter, which is the award code to use.

The parameters are a list of values (in curly parentheses) and the list contains the correct number of values. For example, when rounding an accumulator to the nearest given value (NlxPrArAccumRndN), one parameter is enclosed in curly parentheses. This parameter should be a list with two values; the first value is the rounding factor, and the second value is the index of the accumulator.

The parameters supplied are the correct type. For example, when adding a value to an accumulator (NlxPrArAccumAdd), there is one parameter that is a list of values. The first value in this list is the index of the accumulator that the value will be added to. This value is an integer, such as 1,2,3, which means this value must be:

- a. The result of a function evaluation that is an integer.
- b. A string that can be recognised as an integer ('4' is a valid string, '4.2' and 'text' are not).



Updating an accumulator from an entity field

Accumulators can be updated from the following entities:

- Pay period
- Internal company
- Master (TransCurrentMaster)
- Employee
- Employee Award
- Employee ACC.

The following example shows a clause that is used to update an accumulator from an entity:

```
NlxPrArAccumFieldPost('Salary'), NlxPrArAccumEmField('1')
```

The following checks are performed:

- a. The field name exists (including user defined fields).
- b. The field represents a numerical type. For example, you would not accumulate from the birth date.

Retrieving entity field values

When you apply a qualifying clause, PayGlobal compares the values on the left-hand side against a list of values on the right-hand side. For example, for the `oEQ(NlxEmField('DaysWorked'),{0})` clause, 'DaysWorked' is the field in the Employee table, and '0' is the field value.

The Integrity Checker checks whether the list on the right-hand side is compatible with the left-hand side.

Date type functions are also verified to ensure that they are dates and use one of the following formats: 'YYYYMMDD' or 'YYYY-MM-DD hh:mm:ss.mmm'.



Updating an employee field from an accumulator

The following type of clause updates an employee field from an accumulator:

```
NlxPrArFieldAccumPost('Salary'),NlxPrArEmFieldAccum('1')
```

The following checks are performed on this type of clause:

- a. The field exists (including user defined fields).
- b. The field is a numeric type. For example, you would not update the employee birth date from an accumulator.

Updating an employee field to a specified value

The following type of clause updates an employee field to a specified value:

```
NlxPrArFieldPost('Salary'),NlxPrArEmField('$10A00')
```

The following checks are performed on this type of clause:

- a. The field exists (including user defined fields).
- b. The value is appropriate.
- c. The employee code is never updated.
- d. Referential integrity is respected. For example, when you update the employee award code, you must use an award code that is in the awards table. This applies to all foreign key entries.

Checking that generated transactions are correct

When constructing a current allowance or a current deduction to be paid, the following checks are performed:

- a. The associated allowance or deduction exists.
- b. The award, reason, position and other associations (foreign keys) exist.
- c. Superannuation fund allowances or deductions are not posted for Superannuation funds that do not exist.
- d. Superannuation fund field names are one of the following:
 - o AllowSalarySAmountCode
 - o AllowSalarySPercentCode
 - o DeducSalarySAmountCode
 - o DeducSalarySPercentCode
 - o EmployeeAmountCode
 - o EmployeePercentCode
 - o EmployerAmountCode
 - o EmployerPercentCode
 - o OtherMemberAmountCode
 - o OtherMemberPercentCode.

Unlike most of the other rules, this rule is run independently of the tables that you select. This rule checks a specific set of NLX tables: PayrollRuleEmployeeClause, PayrollRuleQualifyingClause and PayrollRuleActionClause.

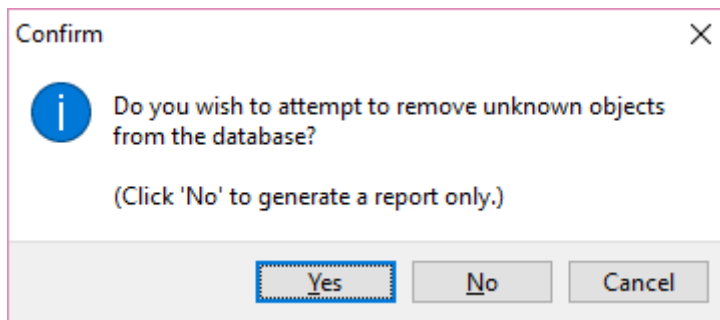
This rule does not automatically correct errors.

Check Database Structure

Before you upgrade, you need to run the Check Database Structure command to check the validity of your database structure.

Important: If the Check Database Structure command finds errors in your database, you can still use and upgrade PayGlobal.

1. Log on to PayGlobal.
2. In the PayGlobal Tree, navigate to Administration | Maintenance | Check Database Structure.
3. Double-click Check Database Structure.
The following message appears:



4. Click No to generate a report only.
PayGlobal checks your database structure, and an audit log Confirm message appears.
5. Click Yes or press Enter to view the audit log.

If your audit log lists any database structure issues, then check whether they were caused by objects that you added the database. If this is the case, then do not remove your objects, just close the log and continue the upgrade.

If your audit log contains "Index not found" errors, then run the Standard Reindex command to recreate the indexes (see Help topic 235).

If your audit log does not list any database structure issues, then close the log and continue the upgrade.

You can continue with the upgrade process, or you can upgrade after you have addressed your database structure issues.



Get PayGlobal Installation File

To get a copy of the current PayGlobal tax release version zip file:

1. Go to the URL specified in the Release email sent to you by PayGlobal and download your tax upgrade version.
2. Extract the PayGlobal zip file to a convenient location on your computer.

The PayGlobal zip file contains the MSI installation file install instructions, and release notes.

Note: We recommend saving the MSI installation file in the Versions root folder so you can use the patch tool if required. See file structure in [Upgrading PayGlobal](#)

3. Record the location of the files and the upgrade version number on your upgrade worksheet.

You will use the contents of this file in the upgrade section.

Note: If any files are missing or you cannot open them, then please contact MYOB PayGlobal Support.

Ensure Exclusive Access

A supervisor user should run the whole upgrade procedure.

Important: Ensure that no other user can access PayGlobal during the upgrade.

You can use Lock System and select a session lock to prevent other users from logging on to PayGlobal.

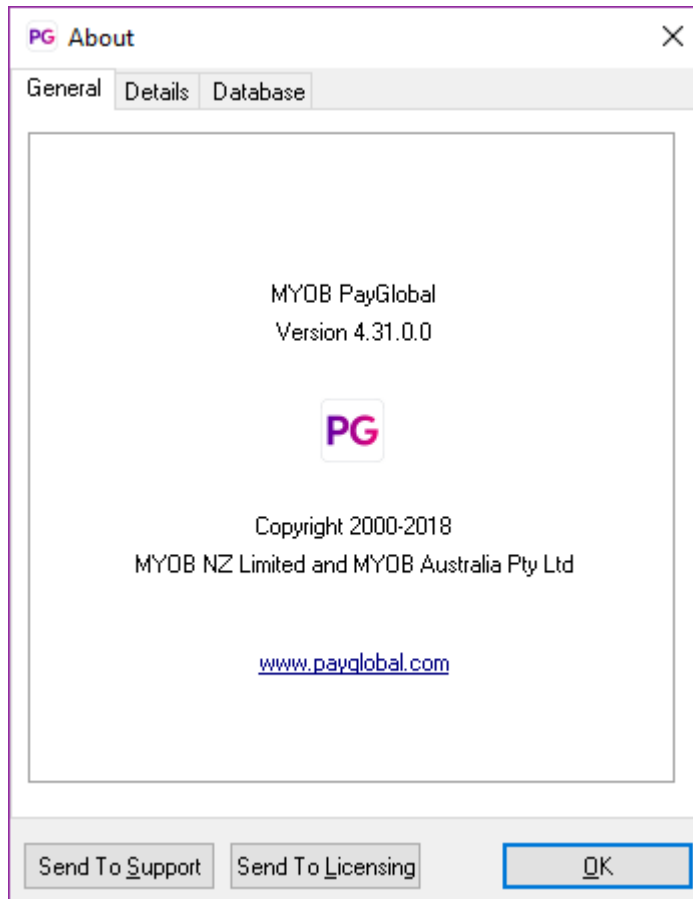
Further Reading: For more information about *Lock System*, see Help topic 222.

After PayGlobal completes the upgrade, an audit log Confirm message appears. When you acknowledge this message, the system updates the PayGlobal version number. If you do not use *Lock System*, and another user logs on to PayGlobal at this point, then the database upgrade will start again, and you will have to restore the database.

Record Current Database Information

You need to record your **current version number** and **application directory** on the upgrade worksheet.

1. Log on to PayGlobal.
2. In the menu bar, click **Help | About**.



In this example the current PayGlobal version is 4.31.0.0.

3. Record your current version number on your upgrade worksheet.
4. Click the **Details** tab.
This page displays important information about your database.



About

General Details Database

User name :
QA

Application directory :
C:\PayGlobal\VERSION\4.24\

Data directory :
C:\PayGlobal\DATA\TreeTopDatabase\

Temp directory :
C:\PayGlobal\DATA\TreeTopDatabase\Temp\PgTemp\QA

Company number :
COMP3002

Database Type :
Microsoft SQL Server

Currently installed Self-Service Version :
3.5.0.2386

Send To Support Send To Licensing OK




5. Record the **Application directory** on your upgrade worksheet.
6. Click **OK** to return to the main PayGlobal window.

Close all Open Pay Sequences

We recommend that you close all open or processed pay sequences (including manual pays) before you upgrade to the PayGlobal tax release.

Use the Pay Status form to check the status of your pay sequences.

1. On the PayGlobal menu bar, click the **Pay Status** button or press **Ctrl+Y**.
2. In the Pay Status window, click the **PR Seq** tab.
The PR Seq tab shows the status of pay periods that are opened, processed or closed. The following table explains the icons used on the PR Seq tab.

Icon	Meaning
	Pay period is open
	Pay period is open and processed
	Pay period is closed

3. Click **OK** to return to the main PayGlobal window.

Back up Databases

Take a backup of your current 'live' database. You will use this backup to create a new test database, see [Create New Test Database](#). If you have multiple 'live' databases, then backup each of them.

Note: *The backup file will not contain the files in the Perm and Rept folders of your live database. After you create a new test database, you need to copy these files from your live database into the corresponding folders in the test database. See [Copy Customised Database Files](#)*

1. Navigate to the **Administration | Backups | Backup** command.
2. Double-click the **Backup** command.
3. In the Backup window, click the **Backup** button.
4. Click Close.

Important: Repeat this backup procedure for **all** your live company databases.

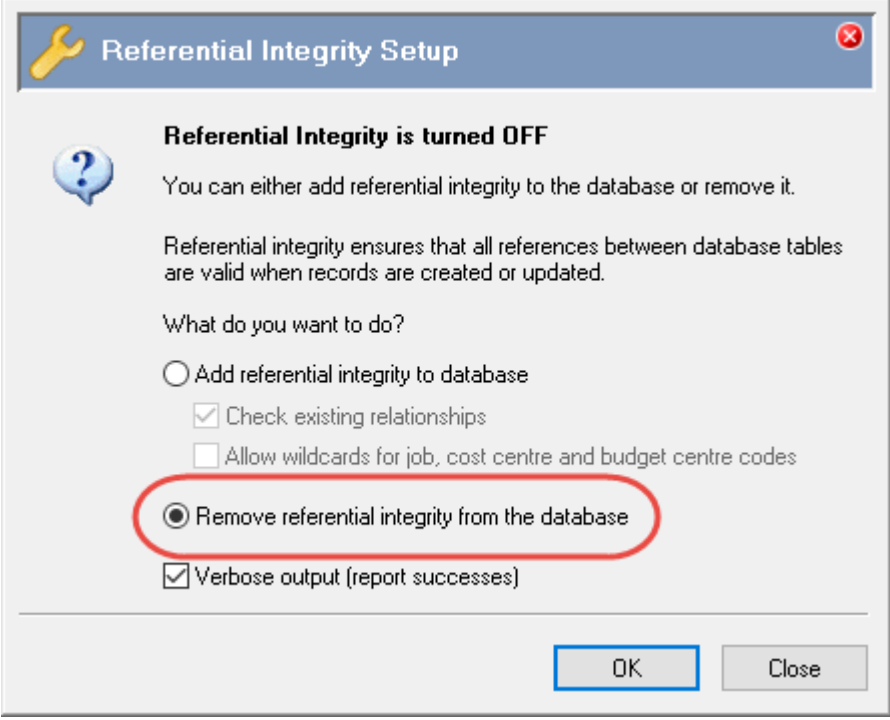
Turn off Referential Integrity

If your database has referential integrity turned on, then you must turn it off before you upgrade.

1. Navigate to the **Administration | Maintenance | Apply Referential Integrity** run command.
2. Double-click the **Apply Referential Integrity** command.

The *Referential Integrity Setup* form appears.

If *Referential Integrity is turned ON* is displayed on the first line, then you must turn referential integrity off before you upgrade.



The image shows a Windows-style dialog box titled "Referential Integrity Setup". It has a yellow wrench icon in the top-left corner and a red close button in the top-right corner. The main content area has a light gray background. At the top, it says "Referential Integrity is turned OFF" next to a blue question mark icon. Below this, it says "You can either add referential integrity to the database or remove it." and "Referential integrity ensures that all references between database tables are valid when records are created or updated." Then it asks "What do you want to do?". There are two radio button options: "Add referential integrity to database" and "Remove referential integrity from the database". The "Remove" option is selected and is circled in red. Below these are two checkboxes: "Check existing relationships" (checked) and "Allow wildcards for job, cost centre and budget centre codes" (unchecked). At the bottom, there is a checkbox for "Verbose output (report successes)" which is checked. At the very bottom right, there are two buttons: "OK" and "Close".

3. Check that **Remove referential integrity from the database** is selected.
4. Click **OK**.
A progress bar appears followed by an audit log message.
5. Check the log and then press **Esc** to return to the Referential Integrity Setup form.
6. Press **Esc** or click **Close** to return to the main PayGlobal window.



Close All Applications and Stop PayGlobal Scheduler Service

You must close all applications and stop the PayGlobal Scheduler Service before you start the upgrade.

1. Exit PayGlobal by clicking **File | Exit**, and then clicking **Yes** in the *Confirm* box.
2. Exit Microsoft Outlook.
3. Exit all other Windows-based programs.
4. If you use scheduler, then stop the PayGlobal Scheduler Service.

Navigate to **Control Panel | Windows Tools | Services**. Right-click the *PayGlobal Scheduler Service* and select **Stop**.



Upgrading PayGlobal

This section explains the upgrade process for an organisation that uses multiple versions and databases in one *Hr.ini* file, which is the recommended setup (best practice).

Important: PayGlobal does not allow you to install two builds of the same version on the same machine. For example, you could not install 4.14.0.0 and 4.14.0.1 on the same machine, but you could install 4.13.0.1 and 4.14.0.2 or 4.18.0.0.

If you use multiple versions and databases with one *Hr.ini* file, then your file structure will be like the following example.

C:\PayGlobal	\Companies	\Live
		\Test
		\Training
	\Versions	\4_18_0_0
	StartPayGlobal.exe	
	Hr.ini	

In the *Hr.ini* file, each database will have a *CompanyPath* (path to the company data folder) and a *RunVersion* (the PayGlobal version that the database is using).

```
----- Databases -----
[COMP0001]
CompanyPath=C:\PayGlobal\Companies\Live\
CompanyName=Live
RunVersion=4_18_0_0

[COMP0002]
CompanyPath=C:\PayGlobal\Companies\Test\
CompanyName=Test
RunVersion=4_18_0_0

[COMP0003]
CompanyPath=C:\PayGlobal\Companies\Training\
CompanyName=Training
RunVersion=4_18_0_0
```



----- Versions -----

[RUNVERSION_4_18_0_0]

RootPath=C:\PayGlobal\Versions\4_18_0_0\

The *RunVersion* value must have a corresponding [RUNVERSION_value] entry. The [RUNVERSION_value] entry contains the *RootPath* to the *Hr.exe* and all other associated files for that version of PayGlobal.

The shortcut on your desktop will point to *StartPayGlobal.exe* in your primary Exolvo folder. *StartPayGlobal.exe* opens the PayGlobal splash screen and if *Hr.ini* contains multiple companies, then it lists them alphabetically.



Create New Test Database

Always upgrade your test database before you upgrade your 'live' database so you can check that everything works correctly in the new version, such as your designer reports. However, the test database must reflect the status of the 'live' database, so you need to create a new test database for every upgrade. In [Back up Databases](#), you took a backup of your current 'live' database and now you will restore from this backup to create a new test database.

Important: Only members of the *sysadmin* fixed server role can restore a database.

Restore from Backup

When you restore from a backup file, the MDF and LDF files are extracted from the backup and copied to the default Data and Log folders in your SQL Server folder.

1. Copy the backup file to a folder on the SQL Server machine or a UNC shared folder that the SQL Server account has Read access to.

UNC pathing requires the folder to be a network share. The service account used to run the SQL Server service must have full Modify rights to the shared folder. To check the which service account is in use, you can go to SQL Server Configuration Manager.
2. Click the Windows **Start** button.
3. Use one of the following options to add the path of the current PayGlobal *Hr.exe*:
 - a. In Windows Explorer, navigate to the PayGlobal *Hr.exe*, and then drag-and-drop it into the Open field in the Run box.
 - b. Type the *Hr.exe* path into the Open field in the Run box.

Important: If the *Hr.exe* path contains spaces, then you **must** enclose it in double quotes.

For example:

"C:\PayGlobal\Versions\4_14_0_2\Hr.exe"

4. After you add the *Hr.exe* path, type a **space**, and then **/initsql**.

For example:

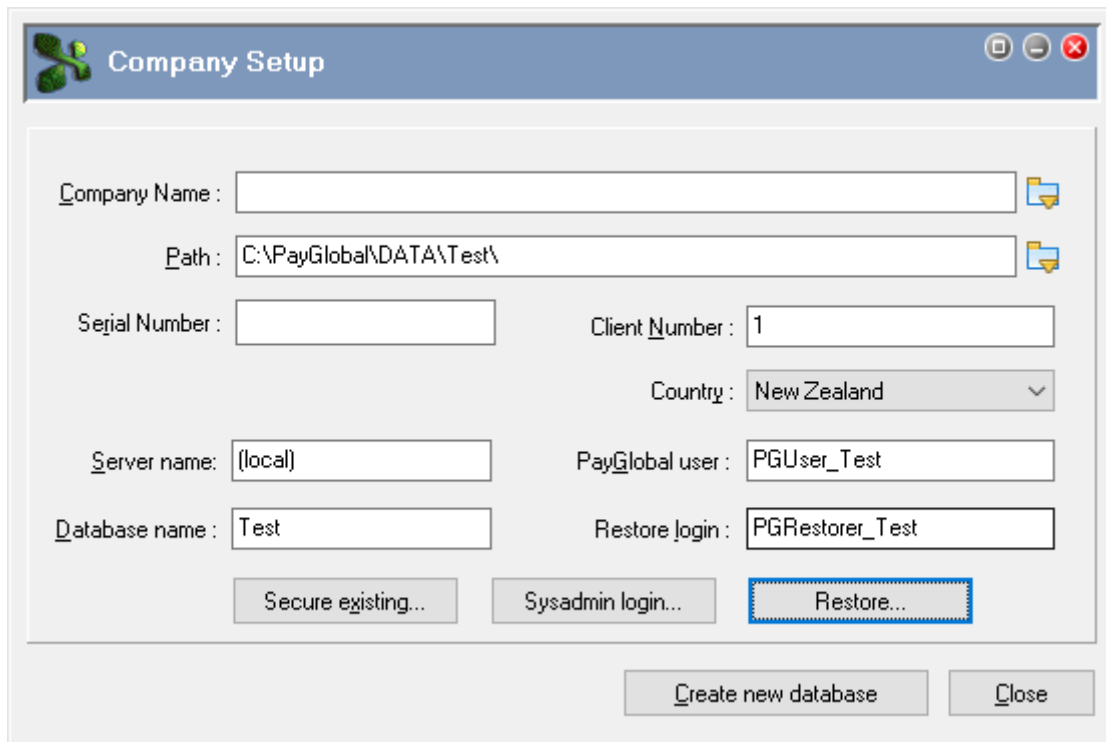
"C:\PayGlobal\Versions\4_14_0_2\Hr.exe" /initsql

5. Click **OK**.
The *Company Setup* form appears.



6. Enter the following details:

Field	Details
Company Name	(Blank)
Path	Type the path to the Test folder in your Companies directory, such as C:\PayGlobal\Companies\Test\
Serial Number	(Blank)
Client Number	(Blank)
Database type	SQL Server
Country	Select the relevant country, such as <_Country>.
Server name	SQL Server machine where the database will be created and stored.
Database name	Name of the test database, such as Test.
Important: You cannot use a number as the first character in the database name. The database will not be created, and the following message will appear in the audit log: Line 1: Incorrect syntax near [database name]. If you already had a test database, then you would have to use a different name or delete the original test database in Microsoft SQL Server Management Studio.	
PayGlobal user	Accept the default, which is <i>PGUser_(Database name)</i> .
Note: The <i>PayGlobal</i> user must be unique to each database. You are creating a test database so the <i>PayGlobal</i> user will be <i>PGUser_Test</i> .	
Restore login	Accept the default, which is <i>PGRestorer_(Database Name)</i> because each database on your SQL server needs a unique <i>Restorer login</i> .



The image shows a 'Company Setup' dialog box with the following fields and buttons:

- Company Name :** [Text Field]
- Path :** [Text Field] (Value: C:\PayGlobal\DATA\Test\)
- Serial Number :** [Text Field]
- Client Number :** [Text Field] (Value: 1)
- Country :** [Dropdown Menu] (Value: New Zealand)
- Server name :** [Text Field] (Value: (local))
- PayGlobal user :** [Text Field] (Value: PGUser_Test)
- Database name :** [Text Field] (Value: Test)
- Restore login :** [Text Field] (Value: PGRestorer_Test)
- Buttons:** Secure existing..., Sysadmin login..., Restore... (highlighted with a blue dashed border), Create new database, Close

Authentication

The data that you enter in the *PayGlobal user* field depends on the SQL Server Authentication type (either Windows Authentication or Mixed Mode) that was selected when SQL Server was installed. *Mixed Mode* allows users to connect using *SQL Server Authentication* or *Windows Authentication*.

▪ SQL Server Authentication

By default, a login is created on the server and a corresponding user is created in the new database. PayGlobal will use this system user to log into the SQL Server to access the database and to set the application role. *PGUser* has very limited access to SQL Server and cannot access data in any database. The user is added to the *Db_Denydatareader* and *Db_DenyDataWriter* roles.

The setup program will not allow an existing user to access the new database.

If you have multiple databases, then you must assign each database a different PayGlobal user. For example:

Live database: *PGUser_Live*

Test database: *PGUser_Test*

After the user is created in the new database, the setup application configures the datalink file with the server, database, and user name and password.

▪ Windows Authentication

If the SQL Server uses Windows Authentication, then leave the *PayGlobal user* field empty. The setup program will configure the datalink file to connect using Windows Authentication. The Server and database names are also stored in the datalink file.

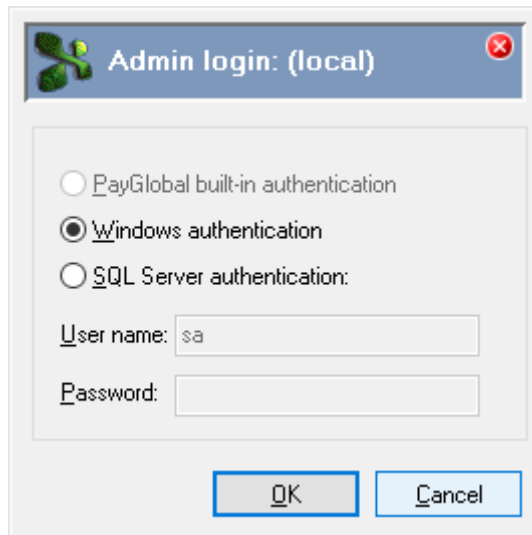
7. Click **Restore**.
8. The **Open** dialogue box appears.
9. Browse to the backup file.

If the file is on a network share on the local machine, then use *Network Neighbourhood* to locate the file.

Important: SQL Server **cannot** use mapped folders to access files.

10. Click the required **BAK** backup file.
11. Click **Open**.

The *Admin login* prompt appears.

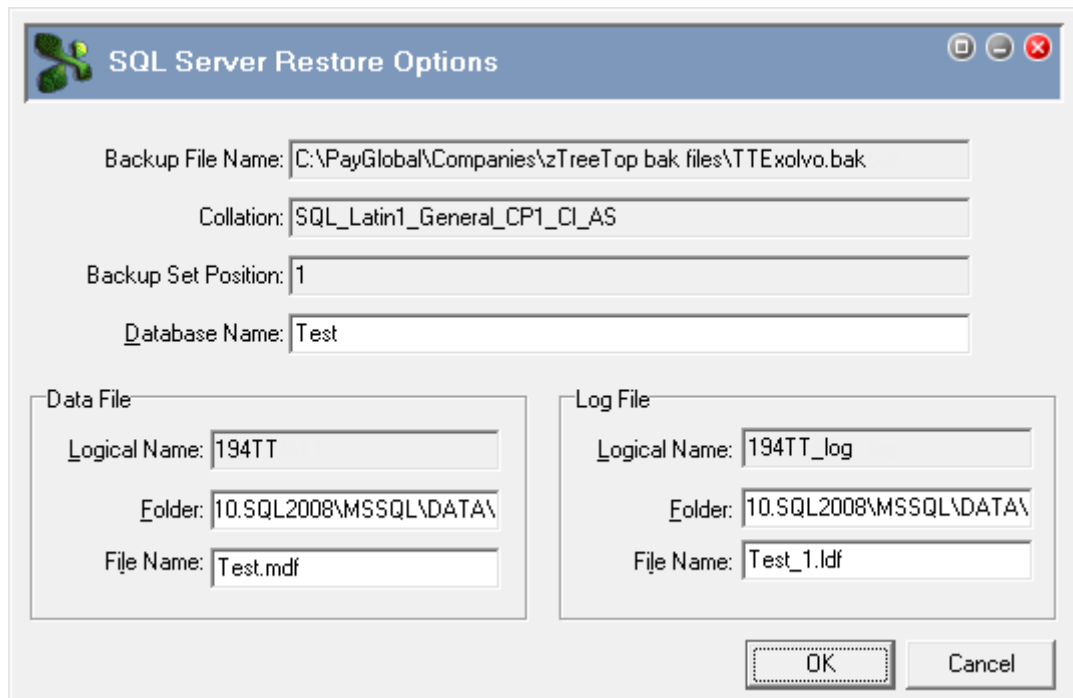


12. Select the authentication option that was used when SQL Server was installed: **Windows authentication** or **SQL server authentication**.
If you select SQL server authentication, then complete the User name and Password fields.
13. Click **OK**.
The backup file that you selected appears in the Restore from Backup File form.
14. Click **Restore**.
The SQL Server Restore Options form appears.



15. Enter the following details:

Field	Details
Backup File Name Collation Backup Set Position	You cannot change these values because they are derived from the BAK backup file that you selected.
Database Name	The default Database Name is derived from the BAK backup file. You must change it to the Database name that you used on the Company Setup form, such as Test.
Data File	
Logical Name	You cannot change this value because it is derived from the BAK backup file that you selected.
Note: You assign a <i>Logical Name</i> when you create a database and it does not change when you upgrade the database. In this example, the Logical Name reflects the original database, not the database that you backed up in Back up Databases .	
Folder	Check that the path goes to the default Data folder in your SQL Server directory, or you can specify an alternate location.
Note: SQL backup files contain the original data path, which is shown in the Backup File Name field. When you restore an SQL backup, ensure that you are restoring to the correct data path. Otherwise, SQL could try to restore the MDF and LDF files to the original data path, which may not exist.	
File Name	The default File Name is derived from the BAK backup file. You must change it to the Database Name that you used on the Company Setup form. In this example you change it to Test.mdf .
Log File	
Logical Name	You cannot change this value because it is derived from the BAK backup file that you selected.
Folder	The SQL transaction Log File folder uses the same path as the Data File folder. Exception: When the SQL data and transaction log files are on different physical drives (usually to enhance performance).
File Name	The default File Name is derived from the BAK backup file. You must change it to the Database Name that you used on the Company Setup form. In this example you change it to Test_log.ldf .



The image shows a screenshot of the 'SQL Server Restore Options' dialog box. The dialog has a title bar with a green icon and the text 'SQL Server Restore Options'. It contains several input fields for restoring a database. The 'Backup File Name' field is set to 'C:\PayGlobal\Companies\zTreeTop bak files\TTExolve.bak'. The 'Collation' field is set to 'SQL_Latin1_General_CP1_CI_AS'. The 'Backup Set Position' field is set to '1'. The 'Database Name' field is set to 'Test'. Below these fields are two sections: 'Data File' and 'Log File'. The 'Data File' section has fields for 'Logical Name' (194TT), 'Folder' (10.SQL2008\MSSQL\DATA\), and 'File Name' (Test.mdf). The 'Log File' section has fields for 'Logical Name' (194TT_log), 'Folder' (10.SQL2008\MSSQL\DATA\), and 'File Name' (Test_1.ldf). At the bottom right are 'OK' and 'Cancel' buttons.

16. Click **OK**.

An *Information* message appears when the backup is successfully restored.

17. Click **OK** to return to the *Company Setup* form.

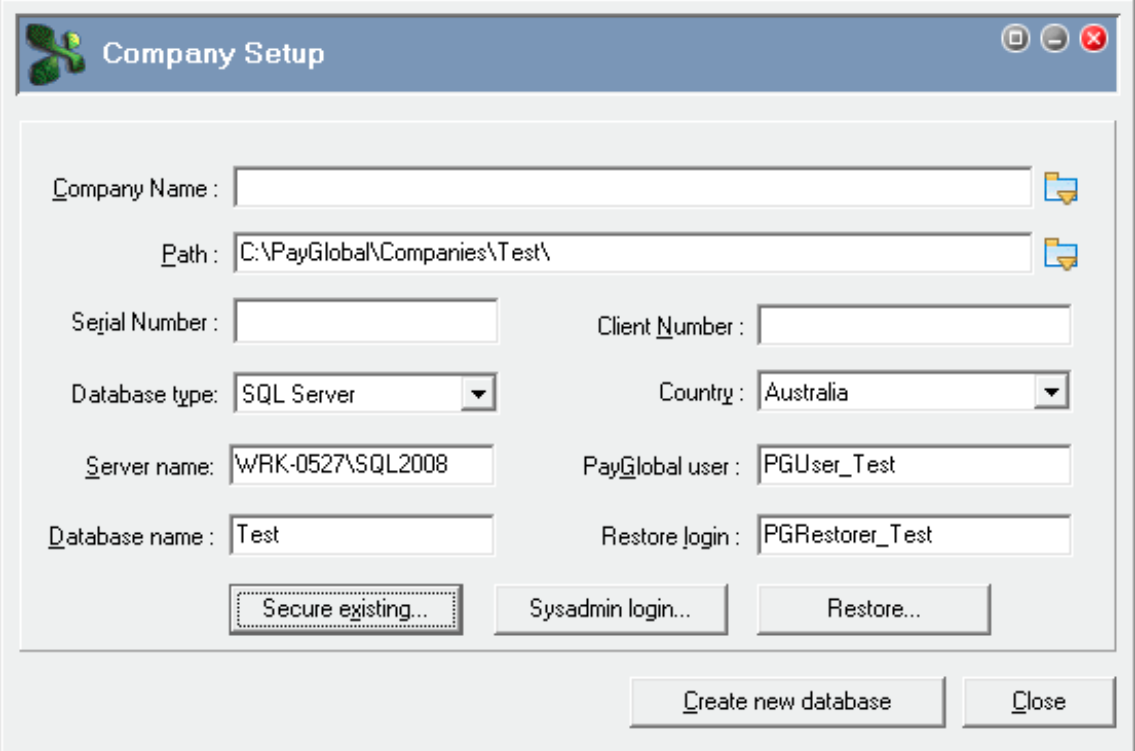
Important: You **must** secure the database after you restore from a backup.

Secure the Database

In this example, when you secure the database, the *Test* company folder and default sub-folders are created in the *Companies* folder. The *PG.udl* and *SQL.dat* file associated with the database are created in the *Perm* folder.

After you restore a database, you must secure it before you can access it.

1. Make sure that the **Database name** on the *Company Setup* form, such as *Test*, matches the **Database Name** you used on the *SQL Server Restore Options* form.



Company Setup

Company Name :

Path :

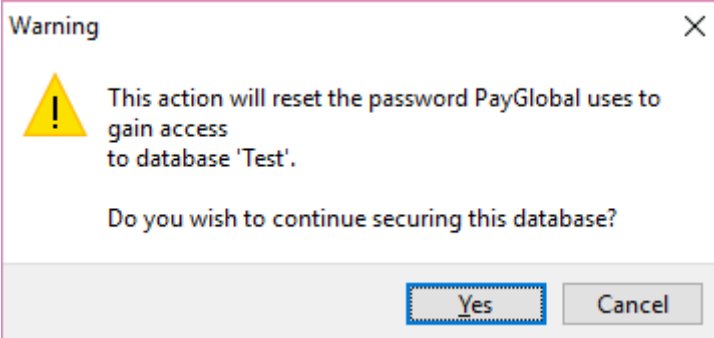
Serial Number : Client Number :

Database type: Country :

Server name: PayGlobal user :

Database name : Restore login :

2. Click **Secure existing**.
A *Warning* box appears.



Warning

! This action will reset the password PayGlobal uses to gain access to database 'Test'.

Do you wish to continue securing this database?

3. Click **Yes** to continue securing the database.

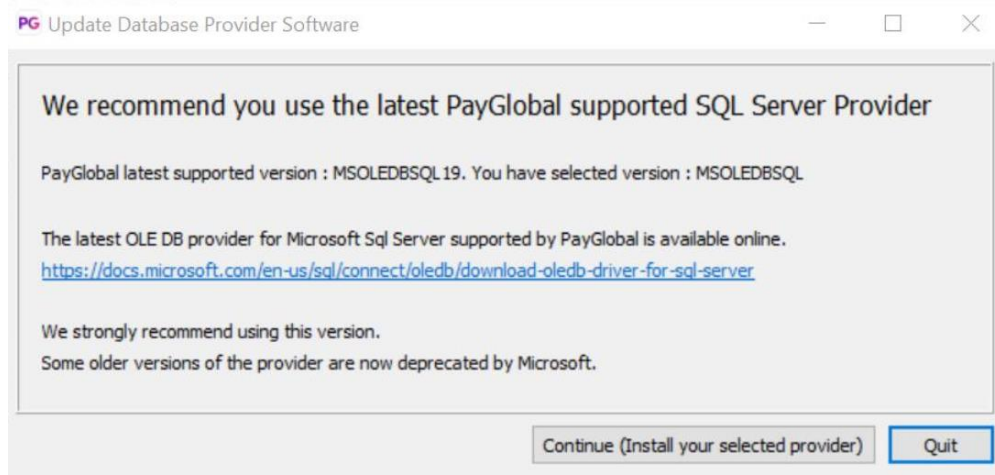
From v4.65 onwards you may get asked to do a **Select Database Provider**.

PayGlobal will detect any SQL Server drivers installed on the machine and display in the Select Database Provider list.

Important: MSOLEDBSQL19 version 19.3.0 has dependencies on [Microsoft Visual C++ Redistributable for Visual Studio 2022](https://learn.microsoft.com/en-us/sql/connect/oledb/release-notes-for-oledb-driver-for-sql-server?view=sql-server-ver16#previous-releases). Please search for the 19.0.0.0 version. <https://learn.microsoft.com/en-us/sql/connect/oledb/release-notes-for-oledb-driver-for-sql-server?view=sql-server-ver16#previous-releases> for alternatives

Example: If you have recently installed SQL Server 2019 but don't have the supporting drivers then you will see a screen that looks like this.

If you click SQLOLEDB or MSOLEDBSQL you will be provided with a prompt recommending you get the MSOLEDBSQL19 driver.

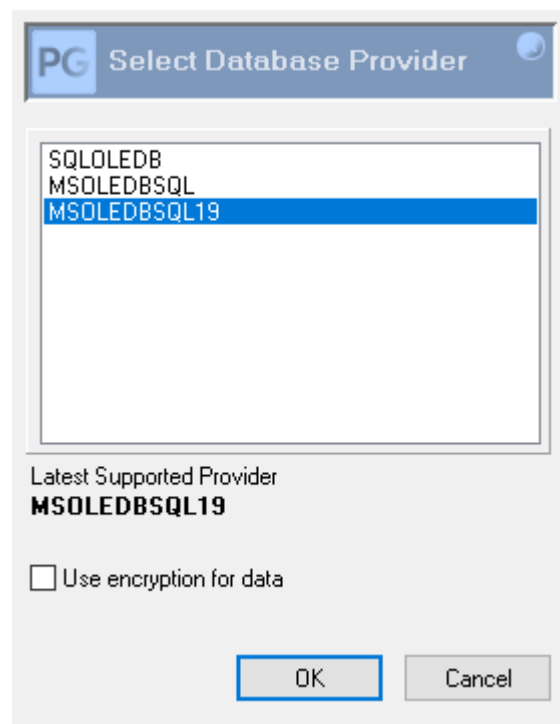


Note: Below is a useful link to the sql server version and related driver version support from Microsoft.

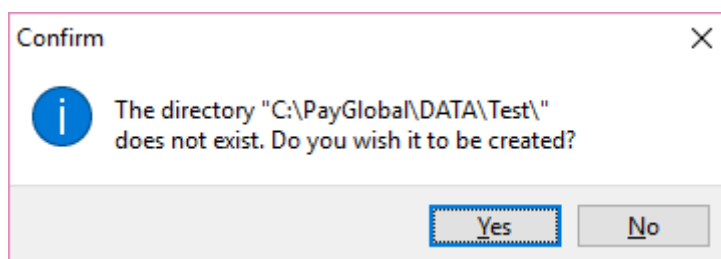
<https://learn.microsoft.com/en-us/sql/connect/odbc/applications/support-policies-for-odbc-driver-for-sql-server?view=sql-server-ver16#sql-version-support>

If you choose to continue with an older driver, you will receive a further prompt about the security risks of using older drivers.

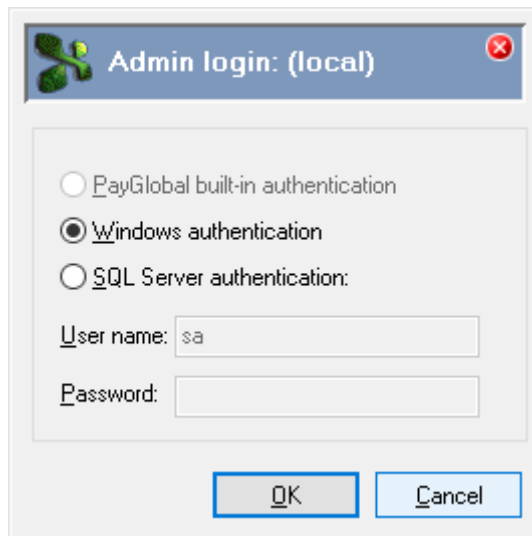
If the latest Support Provider is detected. It will be selected by default. Click the OK button.



You will now be presented with the following.



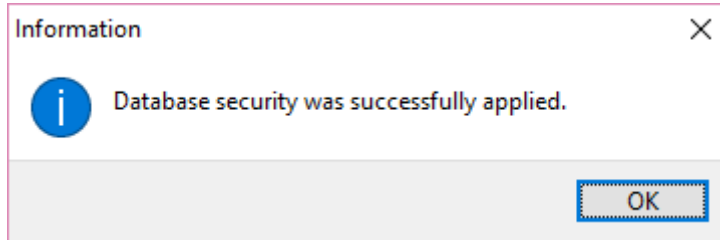
4. Click **Yes** to create the directory.
The *Admin* login prompt appears.



5. Select the authentication option that was used when SQL Server was installed:
Windows authentication or **SQL server authentication**.
If you select SQL server authentication, then complete the **User name** and **Password** fields.
6. Click **OK**.

7. If a *Confirm* message appears, click **Yes** to continue.

An *Information* box appears.



8. Click **OK** to return to the *Company Setup* form.

9. Click **Close**.

A *Confirm* box appears.

10. Click **Yes** to close the *Company Setup* form.

Important: After you upgrade or restore an SQL server database, we recommend that you restart the SQL Server Service to free resources.

You have created the following:

- A **database folder** called **Test** in the *Companies* folder.
Test does not contain any database files.
- A **database** called **Test** on your SQL Server.
Test stores the database files. You can view the new database using SQL Server Enterprise Manager.



Run PayGlobal Installation Wizard

Install PayGlobal in your Versions directory.

1. Close all applications, including PayGlobal.
2. Navigate to the new PayGlobal release version file on your computer.

Note: We recommend saving the PayGlobal MSI installation file in the Versions root folder so you can use the Patch Tool if required

3. Double-click **InstallPayGlobal v4.xx.0.x.msi**.
The *Welcome* page appears with the installation version number.
4. Click **Next**.
The *End-User License Agreement* page appears.
5. Read the license agreement.
6. If you accept the agreement, then click **I accept the terms in the License Agreement** to enable the *Next* button.
7. Click **Next**.
The *Select Installation Folder* page appears.
8. Click **Browse** and navigate to your Versions folder.
9. In the **Folder name** field, add the version number you are installing to the path. For example, `C:\PayGlobal\Versions\4_XX_0_X`

Note: The installation wizard can automatically create the `4_XX_0_X` folder.

10. Click **OK** to return to the *Select Installation Folder* page.
11. Click **Next**.
The *Ready to Install* page appears.
12. Click **Next**.
The *Installing PayGlobal [version]* page appears, and the progress bar shows the wizard installing the components in the installation folder.
The *Completing the PayGlobal [version] Setup Wizard* page appears.
13. Click **Finish**.
The *PayGlobal Installation Wizard* closes.

You have installed the new PayGlobal version and now you need to update the *Hr.ini* file so you can upgrade your test database.



Update Hr.ini

After you install the new PayGlobal version into its own folder, you need to update the *Hr.ini* file to upgrade your test database.

1. Open your **Hr.ini** file.
2. Add a **RUNVERSION** section for the new version.

For example:

```
[RUNVERSION_4_XX_0_0]  
RootPath=C:\PayGlobal\Versions\4_XX_0_0\
```

To start upgrading a database, you simply need to change the company's *RunVersion* value to match the new [RUNVERSION_value] entry.

Important: Always upgrade your test database before you upgrade your 'live' database so you can check that everything works correctly in the new version, such as your designer reports

3. Update the **RunVersion** value for your **test** database.

The *RunVersion* value for the test database must match the [RUNVERSION_value] entry, as shown below:



```
----- Databases -----  
  
[COMP0001]  
CompanyPath=C:\PayGlobal\Companies\Live\  
CompanyName=Live  
RunVersion=4_29_0_0  
  
[COMP0002]  
CompanyPath=C:\PayGlobal\Companies\Test\  
CompanyName=Test  
RunVersion=4_31_0_0  
  
[COMP0003]  
CompanyPath=C:\PayGlobal\Companies\Training\  
CompanyName=Training  
RunVersion=4_29_0_0  
  
----- Versions -----  
  
[RUNVERSION_4_31_0_0]  
RootPath=C:\PayGlobal\Versions\4_31_0_0\  
  
[RUNVERSION_4_29_0_0]  
RootPath=C:\PayGlobal\Versions\4_29_0_0\
```

4. Save and close **Hr.ini**.

Now you need to copy across additional files, such as *rpm_hr.ini*, into the new version folder.



Payday Filing Certificate – NZ Only

To ensure that your installation of PayGlobal can submit data for Payday Filing, you must install the latest certificate. The latest certificate is available from PayGlobal Support upon request.

Single Touch Payroll (STP) Certificate – AU only

To ensure that your installation of PayGlobal can submit data for Single Touch Payroll, you must install the latest certificate. The latest certificate is available from PayGlobal Support upon request.

Update PayGlobal.Business.Net.dll.config

The `stpSetting.default.config` file has been replaced by `PayGlobal.Business.Net.dll.config`.

It's used to contain the Host and Thumbprint settings for both Payday and STP.

- Payday Filing "Host" must be set to: <https://nz.agencyapi.myob.com>
- STP Settings "Host" must be set to: <https://stp.agencyapi.myob.com>

The "Thumbprint" is contained with the associated Payday Filing/ STP Certificate.

Copy Additional Version Files

After you install the new version, you need to copy additional files into the new version folder.

rpm_hr.ini

Each version folder must have a copy of `rpm_hr.ini`. This file contains the path to the `Hr.ini`. If the version folder that PayGlobal is using does not contain a copy of `rpm_hr.ini`, then your reports will not process (in *Schedule Info*, Status remains as "Waiting").

1. Copy the **rpm_hr.ini** in an existing version folder and paste it into the new version folder.
2. Open `rpm_hr.ini` and check that the path to **Hr.ini** is correct.

For example:

```
[HR_INI_PATH]
Path=C:\PayGlobal\Hr.ini
```

bank.ini

You must copy the `bank.ini` file from your current version folder and paste it into the new version folder.

ads.ini

SQL Server databases use ADS virtual tables to run reports. If the version folder that PayGlobal is using does not contain a copy of `ads.ini`, then you may receive the following error when you attempt to run a report: "Error 5185: Local server connections are restricted in this environment". The `ads.ini` file is not used when you are running PayGlobal locally.



payglobal.jpg

If you have a custom logo, then you need to copy **payglobal.jpg** from the *Image* folder in an existing version folder to the *Image* folder in the new version folder.

PayGlobal.Business.Net.dll.config

This file controls your ability to use the MYOB Agency API for completing Payday Filing in New Zealand and Single Touch Payroll (STP) in Australia.

For each upgrade from v4.41 to a newer version, you must copy this file from your existing version and replace the one in the new version application directory.



Copy Customised Database Files

The database directory contains customised files that you need to copy from the live database to the test database.

Perm

The *Perm* folder contains files used for user and layout settings, such as *DailyViewLayoutDefault.ini*. You need to copy these files from your live database into the *Perm* folder in the test database. However, the *Perm* folder also contains *PG.udl* and *SQL.dat* files that are database specific.

Important: Do **not** copy the **PG.udl** and **SQL.dat** files from your live database to the test database. If you overwrite the new *PG.udl* and *SQL.dat* files in the test database with the live database files, then you will connect to the live database specified in the *PG.udl* file instead of the new test database.

Rept

PayGlobal uses two *Rept* folders:

1. The main *Rept* folder in the **version** directory contains the original report definitions that were imported as part of installing or upgrading PayGlobal.
2. The *Rept* folder in the **company database** directory contains customised report definitions.

When you run a report, PayGlobal checks the company database *Rept* folder for the report definition, and it does not find that definition, it uses the original definition in the version *Rept* folder. If you have customised reports, then you need to copy these files from your live database into the *Rept* folder in the test database. You would then run the customised reports in the test database to ensure that they run correctly in the upgrade version.

Note: *If you copy across all report definitions and your database *Rept* folder contains a standard report that is updated in the upgrade version, then PayGlobal will run the old version of the report, not the updated report in the version *Rept* folder. You should delete standard reports in the data *Rept* folder.*

SpreadSheets and Workflow

PayGlobal treats SpreadSheets and workflows in the same way as reports. If you have customised SpreadSheets or workflows, then you need to copy these files from your live database into the corresponding folder in the test database. You would then use the customised files in the test database to ensure that they run correctly in the upgrade version.

Upgrade Test Database

You have installed the new PayGlobal version and set up a new test database so now you can upgrade your test database.

1. Start PayGlobal for the **test** database.

A message appears asking whether you wish to upgrade. If the message does not appear, then your upgrade procedure may have been unsuccessful. In [Confirm Upgrade Version](#), you will confirm the upgrade version.

2. Click **OK**.

When PayGlobal completes the update, an audit log message appears. When you acknowledge this message, PayGlobal will update the version number.

Important: You must ensure that no other user can access the PayGlobal executable during the upgrade. If another user logs on to PayGlobal at this point, the database upgrade will start again, and you will have to restore the database.

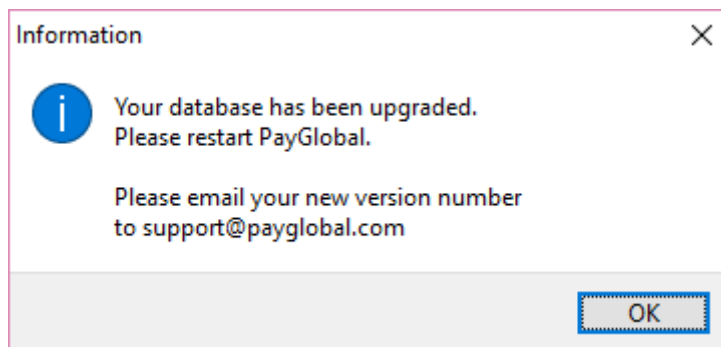
3. Press **Enter** or click **Yes** to view the audit log.

Reviewing the audit log will help you understand the nature and extent of the conversion process. When you upgrade, liabilities are refreshed automatically. The audit log may contain lines that begin with an exclamation mark (!). The exclamation mark highlights liabilities that have been refreshed. You can ignore these notifications.

Important: Do not ignore any warnings in the audit log. Warnings are important. For example, "Corruption detected" means that you have to find the cause of the data corruption and correct it.

4. Press **Esc** to exit the audit log.

A message appears.



5. Press **Enter** or click **OK** to exit PayGlobal.

When you restart PayGlobal, it will automatically email Customer Support to inform them of your database upgrade (if your messaging is set up to send and receive mail).



You have successfully upgraded your test database.

Important: After you upgrade your database, you cannot run it on an earlier version of PayGlobal. If your PayGlobal application is an older version than your company database, then the following message appears when you restart PayGlobal: "Your database is a newer version than your executable version. Please call PayGlobal Ltd for further assistance." You can click **OK** to close the message, but PayGlobal will not start.

Virtual Payslip Message

The upgrade process checks that the VirtualPayslip table has a value less than 2000, and the following information appears in the audit log:

6	Checking Virtual Payslip field count.
---	---------------------------------------

If the VirtualPayslip table exceeds this value, the following message appears in the upgrade log:

7	Virtual Payslip field count too high. Total must be less than 2000, please change in Company Settings, Virtual Payslip tab.
---	---

Confirm Upgrade Version

After you complete the upgrade installation, you can confirm that it was successful by checking the version number.

1. Log on to PayGlobal.
2. Select **Help | About** in the main menu.

The *About | General* tab appears containing the full PayGlobal version number.

If the General tab does not contain the PayGlobal version number that you installed, then the upgrade was unsuccessful. Download the upgrade installation again and repeat the upgrade process or contact Customer Support for help.

3. Click **OK** to return to the main PayGlobal window.



Changes for Self-Service

If you use Self-Service, then you may need to complete the procedures in this section for **all** your live company databases. We recommend that you request a consultant to run these processes for you, if required.

If you are using **any version** of Self-Service, then you must complete the [Check Database Name](#), [Install Self-Service Components](#) and [Run Integrity Checker for Self-Service](#) procedures.

Check Database Name

If the name of the database that you are using was changed during the upgrade procedure, then you need to use Config Editor to update your database name when your upgraded database goes live. Changing the database name in Config Editor will log out all Self-Service users, so update the configuration files outside normal business hours.

Install Self-Service Components

If you use Self-Service, you need to install the appropriate Self-Service Components. The Self-Service Components allow Self-Service to retrieve information about an employee's work schedule.

For example, profiled hours and roster information that is used when an employee applies for leave or reviews *My Roster* or *Employee Roster*. You need to install the components that are the same version as your PayGlobal version.

Important: If PayGlobal and the Self-Service Components are not the same version, then an error will appear to users when they open Self-Service.

To download the Self-Service Components, log on to your PayGlobal website and navigate to the *Software Releases* section.

Procedure

1. Ensure that you have exclusive access to PayGlobal and Self-Service.
If anyone accesses Self-Service while you complete this procedure, then file locking will stop you from copying the files successfully.
2. Extract the contents of the **Self-Service Components.zip**.
3. Copy and paste the files to the **bin** folder in your Self-Service installation folder.
4. Run the ConfigUpdater executable

Important: You **must** run the "ConfigUpdater" executable included in the Self-Service Components shipped with this release build to ensure that ESS functions.



Run Integrity Checker for Self-Service

You should run the Integrity Checker for Self-Service each time you upgrade PayGlobal. When you installed the Self-Service Components, the Integrity Checker was copied to the bin folder in your Self-Service directory.

When you run the Integrity Checker for Self-Service, it checks only the tables that affect Self-Service. It does not display the company database selection page because the Integrity Checker automatically uses the database specified in the Config Editor. If the connection string specifies the use of integrated security, then the current Windows user must have read/write permissions for the required SQL Server database.

You **must** fix any errors that the Integrity Checker finds before you use Self-Service. If the Integrity Checker finds errors that it cannot correct, then contact Customer Support who may need to book a consultant to fix your database errors.

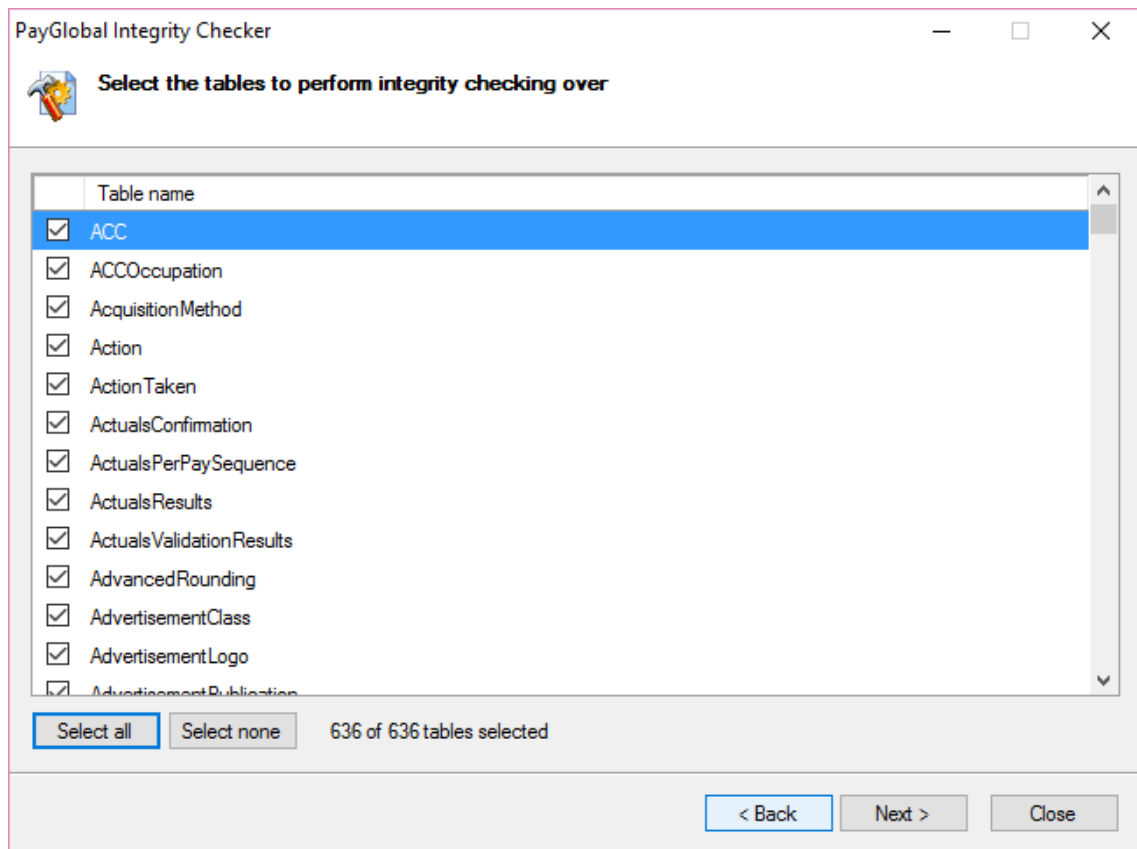
Integrity Checker Procedure for Self-Service

This topic explains how to run the Integrity Checker for Self-Service.

1. Back up the database that you want to check.
You should take a backup of your database before you run any major database processes.
2. Navigate to the **bin** folder in your Self-Service directory.
3. Double-click **IntegrityChecker.exe**.

Note: *The Integrity Checker automatically uses the database specified in the Config Editor.*

The *Select the tables* page appears.

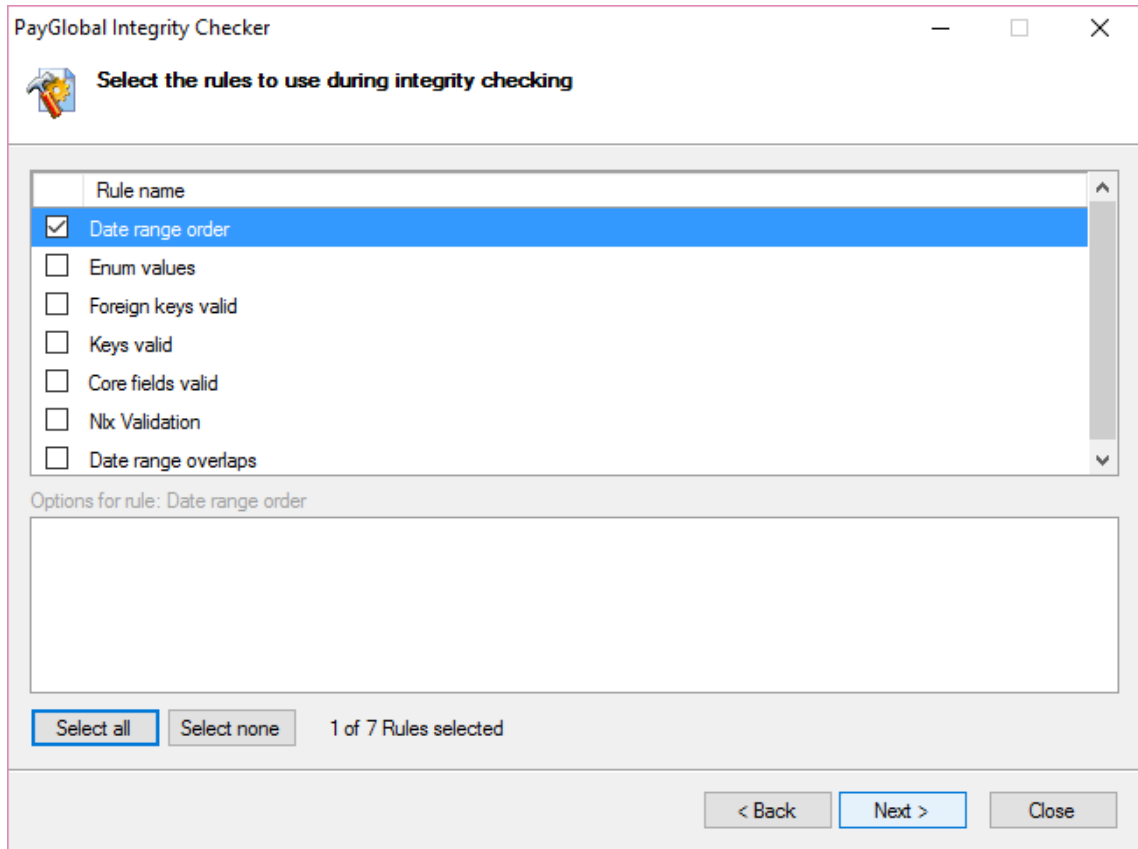


4. Ensure that **all** tables are selected.

Only the tables that affect Self-Service are checked so you should select all tables and all rules to ensure that PayGlobal will work with Self-Service.

5. Click **Next**.

The *Select the rules* page appears.



6. Ensure that **all** rules are selected.

See [Integrity Checker Rules](#).

The [Keys valid](#) rule has options that you can configure in the *Options for rule* section.

Note: When you have selected a rule that may update your database, the following message appears:

"One or more of the rules you have selected may alter your data. It is recommended that you backup your database before continuing. Do you want to continue?"

- Click **Yes** to go to the next page.
 - Click **No** to return to the rule's selection page.
-

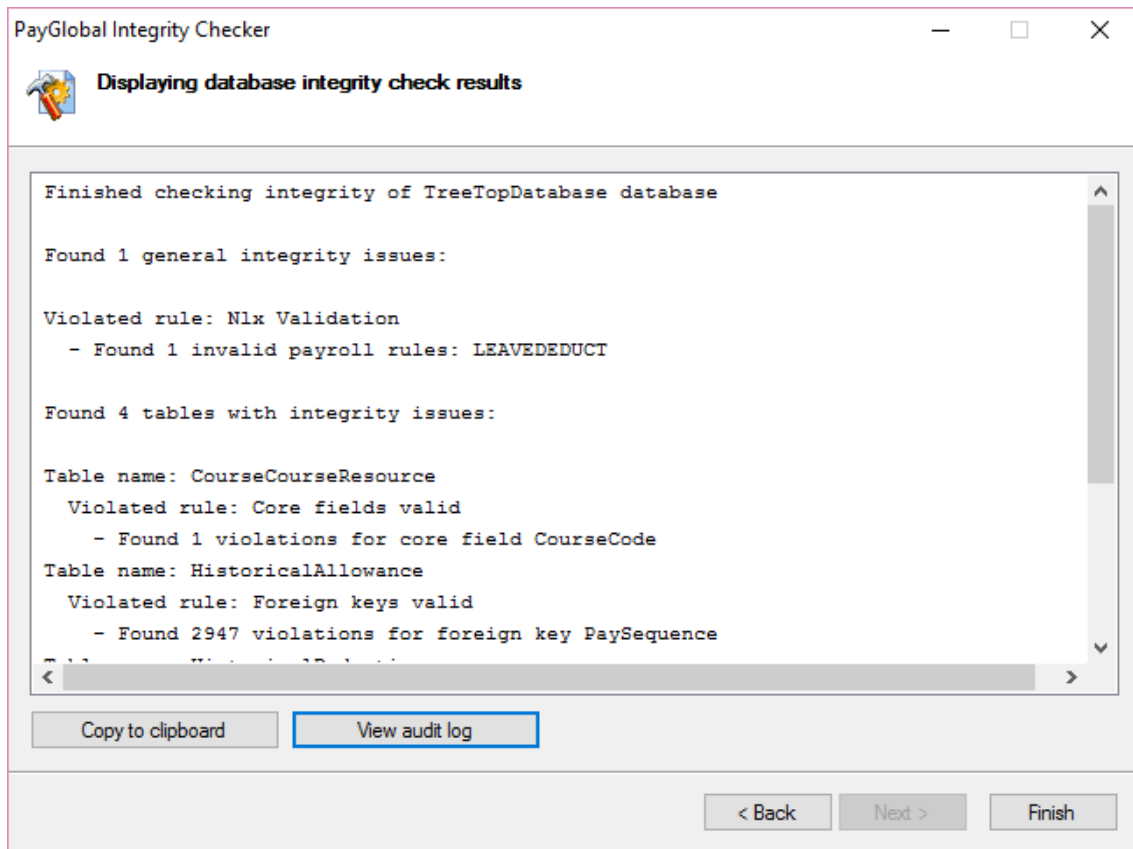
7. Click **Next**.

The *Begin integrity checking* page appears.

8. Click **Start**.

A two-stage progress bar and status messages are displayed while the tables are checked by each rule. You can click the Cancel button to cancel the process, which allows the rule that is currently running to complete before the integrity check is terminated. If you cancel the process, then any changes that have already been made to the database are **not** rolled back.

The *Displaying database integrity check results* page appears, which displays a summarised list of violations.



To view more information about the integrity check, click the [View audit log](#) button.

The audit log shows which tables and records have problems, which rules were violated, and the errors that were corrected. The audit log is saved in the ...HRSS\bin folder and has the prefix "Database_Integrity_Check".

9. Click **Finish**.

Important: You **must** fix any errors that the Integrity Checker finds before you use Self-Service. If the Integrity Checker finds errors that it cannot correct, then contact Customer Support who may need to book a consultant to fix your database errors.

See [Integrity Checker Audit log](#) and [Integrity Checker Rules](#).



Check Test Database

Use the following procedures to check your test database.

1. Complete the *After the Upgrade* steps, including importing reports.
2. Run an entire payroll process in parallel with your current version live run.
3. Test all business-critical reports to ensure that they run correctly in the upgraded version. You **must** test designer reports and reports that use UDFs (User-Defined Fields).

Note: If you have customised SpreadSheets or workflows, then you would test them too.

When you are satisfied that your database performs as expected, you can upgrade your live database.



Upgrade Live Database

After you have completely checked the test database on the upgrade version, you can upgrade your live database.

1. Open your **Hr.ini** file.
2. Update the **RunVersion** value for your **live** database.

For example:

```
----- Databases -----  
  
[COMP0001]  
CompanyPath=C:\PayGlobal\Companies\Live\  
CompanyName=Live  
RunVersion=4_24_0_0  
  
[COMP0002]  
CompanyPath=C:\PayGlobal\Companies\Test\  
CompanyName=Test  
RunVersion=4_24_0_0  
  
[COMP0003]  
CompanyPath=C:\PayGlobal\Companies\Training\  
CompanyName=Training  
RunVersion=4_18_0_0  
  
----- Versions -----  
  
[RUNVERSION_4_24_0_0]  
RootPath=C:\PayGlobal\Versions\4_24_0_0\  
  
[RUNVERSION_4_18_0_0]  
RootPath=C:\PayGlobal\Versions\4_18_0_0\
```

3. Save and close **Hr.ini**.
4. Run the StartPayGlobal.exe for the live database to upgrade it and move it to the new version.

You can then uninstall the previous version of PayGlobal, if required.



After the Upgrade

After the upgrade, you must complete the post-upgrade tasks.

Further Reading: *If you use PayGlobal Scheduler, then see the Scheduler manual for more upgrade information.*

Turn on Referential Integrity

After you successfully upgrade, you can turn referential integrity on again.

Note: *If you did not have Referential Integrity switched on prior to upgrading you do not need to complete these steps*

1. Navigate to the **Administration | Maintenance | Apply Referential Integrity** run command.
2. Double-click the **Apply Referential Integrity** command.
The *Referential Integrity Setup* form appears.
3. Check that **Add referential integrity to the database** is selected.
4. Click **OK**.
A progress bar appears followed by an audit log message.
5. Check the log and then press **Esc** to return to the *Referential Integrity Setup* form.
6. Press **Esc** or click **Close** to return to the main PayGlobal window.

Back up Post-Upgrade Database

After you upgrade PayGlobal and your company databases, take backups of each company database.

Important: You must take backups **before** you import reports, SpreadSheets and workflows.

You need to take the backup before you open the first pay for any company in your PayGlobal system. If any issues arise after you open the first pay in the upgraded database and you need to restore from a backup, then you can use the upgraded backup instead of having to restore and upgrade again.

1. Navigate to the **Administration | Backups | Backup** command.
2. Double-click the **Backup** command.
3. In the *Backup* window, click the **Backup** button.
4. Click **Close**.



Import Reports

The PayGlobal upgrade process installed a new report catalogue (*tmrr.zip*) in the PayGlobal version folder. After the upgrade, you need to import the new catalogue to update your report tables.

Note: Please ensure *Referential Integrity* is switched off before starting this process.

Important: Do **not** run the *Create Standard Report Groups* command because it removes report destination and sorting settings

1. In the PayGlobal Tree, navigate to the **Reports | Import Reports** run command.
2. Double-click **Import Reports**.
The *Import Reports* box appears.
3. Click **Import**.

An *Open* box shows the contents of the PayGlobal upgrade version directory.

Note: If the *PayGlobal upgrade version directory* is not displayed, then navigate to it.

4. Double-click the upgrade **report zip file** (tmrr).

Note: If you select a file other than the report catalogue, such as the workflow catalogue, then the following message appears: "Authenticity failure: Please obtain an ORIGINAL report catalogue archive".

The *Import Reports* box appears, and PayGlobal extracts the reports from the zip file to the *Rept* folder in the version directory.

An "Importing completed" message appears.

5. Press **Enter** or click **OK** to return to the PayGlobal Tree.
6. Double-click **Update Report Definitions Table**.
A "Report Definitions Table updated" message appears.
7. Press **Enter** or click **OK** to return to the PayGlobal Tree.

Import Spreadsheets (Optional)

Complete this topic only if you use the Employee Rate Tool or the Remuneration Package Update Tool SpreadSheets.

Note: Australian databases no longer use the ETP SpreadSheet to process Employee Termination Payments.

Importing the *SpreadSheets* catalogue follows the same procedure as importing the Reports catalogue.

1. In the PayGlobal Tree, navigate to the **SpreadSheets | Import SpreadSheets** run command.
2. Double-click Import **SpreadSheets**.
The *Import SpreadSheets* box appears.
3. Click **Import**.
An *Open* box shows the contents of the PayGlobal upgrade version directory.

Note: If the PayGlobal upgrade version directory is not displayed, then navigate to it.

4. Double-click the upgrade **cat** file (*tmss.cat*).
The *Import SpreadSheets* box appears, and PayGlobal extracts the SpreadSheets from the CAT file to the *SpreadSheet* folder in the version directory.
An "Importing completed" message appears.
5. Press **Enter** or click **OK** to return to the PayGlobal Tree.
6. Double-click **Update SpreadSheet Definitions Table**.
A "SpreadSheet Definitions Table updated" message appears.
7. Press **Enter** or click **OK** to return to the PayGlobal Tree.



Import Workflows (Optional)

Complete this topic only if you use PayGlobal workflows. Importing the workflows catalogue follows the same procedure as importing the reports catalogue. However, workflows are country-specific so you must import the appropriate catalogue.

1. In the PayGlobal Tree, navigate to the **Workflows | Import Workflows** run command.
2. Double-click **Import Workflows**.
3. The *Import Workflows* box appears.
4. Click **Import**.

An *Open* box shows the contents of the upgrade version directory.

Note: *If the PayGlobal upgrade version directory is not displayed, then navigate to it.*

5. Double-click the appropriate upgrade workflows **zip** file (tmwf).
The *Import Workflows* box appears and PayGlobal extracts the *workflows* from the zip file to the Workflows folder in the upgrade version directory.
An "Importing completed" message appears.
6. Press **Enter** or click **OK** to return to the PayGlobal Tree.
7. Double-click **Update Workflow Definitions**.
A "Workflow Definitions Table updated" message appears.
8. Press **Enter** or click **OK** to return to the PayGlobal Tree.



Check Security Profiles

After an upgrade, users may not have access to new features. You need to decide the appropriate settings for each security profile. New functionality is explained in the release notes and associated documents for this upgrade.

Further Reading: For more information about how to update your security profiles after the upgrade, see Help topic 8454.

Check Windows Firewall settings for SFTP

With the changes made to SFTP settings in PayGlobal to allow for more secure types of transfer by utilising WinSCP, changes may be required to be made to existing firewall settings.

If you utilise the SFTP transfer settings in PayGlobal for reports or files, or use Scheduler to send to an SFTP server, you may need to check your Firewall settings to allow the WinSCP application. The WinSCP.exe executable sits in the version directory of your PayGlobal application.

However, in most cases, switching to 'Passive' mode will remove the need for firewall rules without any loss of functionality. This can be set under Modify Company settings, and then copied across on the specific reports destination settings.

Check Report Settings

After the upgrade, you need to check that you have not lost any report splitting settings. If these settings are not correct, then you could accidentally publish a full payslip report to Document View and Self-Service users would see details of other employees' pays.

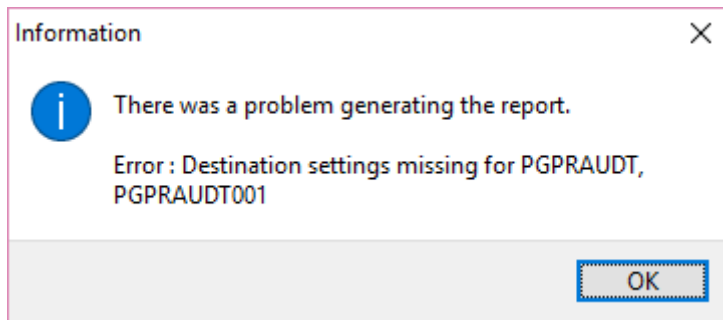
1. Make sure that all user profiles that run reports to Self-Service have a security profile with access to Document View and Document Folders.
2. Check all payslip report settings.

Note: When you upgrade, you could lose report settings that you use to split reports or send reports to Document View. Before you upgrade, you should take screenshots of the settings for these reports so you can easily re-establish them if required.

3. Re-establish any lost report splitting settings.
4. Run a payslip report.
5. Customise your Outbox to show the *Destination Address* column.
6. Check that every payslip report has an employee code in the *Destination Address* column.
7. After you double-click *Send and Receive*, check the audit log to ensure that the payslip reports were split correctly.
8. Open Document View and check that each payslip report has an employee code.

Destination Settings Error

When you run a report for the first time after the upgrade, the following type of message may appear, and the report will not run.



1. Click **OK** to close the message.
2. Open the report destination settings and click **OK** to refresh them.
You do not need to change any of the destination settings.
3. Rerun the report.

This destination settings error will not appear again for this report.



Turn on Referential Integrity

After you successfully upgrade, you can turn referential integrity on again.

Note: If you did not have *Referential Integrity* switched on prior to upgrading you do not need to complete these steps.

1. Navigate to the **Administration | Maintenance | Apply Referential Integrity** run command.
2. Double-click the **Apply Referential Integrity** command.
The *Referential Integrity Setup* form appears.
3. Check that **Add referential integrity to the database** is selected.
4. Click **OK**.
A progress bar appears followed by an audit log message.
5. Check the log and then press **Esc** to return to the *Referential Integrity Setup* form.
6. Press **Esc** or click **Close** to return to the main PayGlobal window.

Effective Rates

By activating rate effectiveness, the PayGlobal solution can provide considerable direct and indirect cost savings by being responsive to rate changes within a period.

Recommended preparation for Effective Rates:

- Review current system and payroll rule setup and identify changes required.
- Ensure data integrity for rates. Run the Integrity Checker and sort out any overlapping rates. Correct rate associated dates are crucial. No date range overlaps will be permitted now.
- Change T&A export and import file type. New export/import format of 'PV. PayGlobal CSV date effective' includes start date for transactions.

Effective Rates packages are available via your account manager.

Remuneration Packages are now also rate effective. For more information, please refer to the Effective Rates manual.



Back up Upgraded Database

After you complete the post-upgrade procedures, take backups of each company database.

You need to take the backup before you open the first pay for any company in your PayGlobal system. Taking a backup will minimise the impact of any issues that may arise after you open the first pay. If you needed to restore the company database, you could use a backup of the updated database. Otherwise, you would have to restore from the post-upgrade backup file, and then complete the post-upgrade procedures again.

Document Change History

Date	Change Summary	PG Versions Applicable to
22/06/2023	ESS minimum .NET Framework Runtime version	
Pre 11/05/2023	<ul style="list-style-type: none"> Change history was not recorded 	Pre-v4.66
11/05/2023	<ul style="list-style-type: none"> Added details for a new prompt Select Database Provider when securing the DB that got introduced in v4.65. Added details regarding SQL Server 2019 drivers also in relation to secure database. Removed the duplication of the Supported environment sections. This included updating the list to reflect current minimum requirements. So that it aligns with Infrastructure Suggestion Manual and the v4.66 Release Notes. Miscellaneous spelling and grammar corrections. 	
17/01/2024	<ul style="list-style-type: none"> Removed section for minimum supported versions – refer to MYOB PayGlobal Infrastructure and Components PDF for further information regarding this. Removed reference to FTP as only SFTP is supported in PayGlobal. 	V4.67.0.0 onwards





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